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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sun-Ho Koh

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09/04/2008

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EXAMINER

HINES, LATOSHA D

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

09/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/525,599	Applicant(s) KOH ET AL.	
	Examiner LATOSHA HINES	Art Unit 4112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the initial Office action based on the 10/525599 application filed on October 07, 2005.
2. Claims 1-7 are pending and have been fully considered.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant is not clear if the amine and alcohol limitations are in addition to the other limitations set in previous claims or if the amine and alcohol replace other components of the limitations set in previous claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-2, 5-6 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by JINMAN (EP 1,323,812).

With respect to claim 1 JINMAN discloses a lamp fuel composition which is produced by a method comprising steps of selecting coloring agent, preparing a stable coloring colloidal solution of the coloring agent, and adding a fuel

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supporter. **JINMAN** gives various examples of how to prepare colored flames.

For example, to prepare green flames:

Table 2

Ingredients	Ratio (% w/w)
Boric acid	3.5 ~ 4
Ethyl alcohol	5 ~ 10
Propylene glycol	40 ~ 60
Ethyl cellosolve	20 ~ 30
Butanol	10 ~ 30
Camphor	0.3 ~ 1
Turpentine oil	0.01 ~ 0.1
Lauryl alcohol	0.2 ~ 2
Total	100

JINMAN shows the amount of coloring agent needed ranges from 3.5 to 4 percent by weight of boric acid, the amount of alcohol needed for the fuel composition ranges from 55.2 to 92.0 percent by weight of ethyl alcohol, propylene glycol, butanol, and lauryl alcohol, the amount of additive containing an ester bond needed ranges from 3.5 to 4.0 percent by weight of boric acid, and the amount of fire power enhancer ranges from 10 to 30 percent by weight of butanol (paragraph 0024-0026). The coloring agent used in the lamp fuel composition is selected depending on desired colors of flames generated when lighting the lamp. To generate the coloring agent: various salts and alcohols are selected such as ethyl alcohol and a lithium salt or a strontium salt ranging , various esters are chosen from a combination such as boric acid and ethyl

alcohol, and various amines are chosen such as dimethylformamide or trimethylamine added with propylene glycol. The fire enhancer used is butanol (paragraph 009-0015).

With respect to claim 2 **JINMAN** discloses the fuel (fuel supporter) used to ensure the production of stable flames may include, for example, alcohol such as methanol, ethanol, propyl alcohol (propanol), and the like (paragraph 0015).

With respect to claim 5 **JINMAN** discloses an example of how to prepare a lamp fuel composition for producing blue flames:

Table 5

Ingredients	Ratio (% w/w)
Copper salt	0.04 ~ 0.1
Butanol	5 ~ 10
Ethyl alcohol	5 ~ 10
Propylene glycol	40 ~ 55
Ethyl cellosolve	25 ~ 35
Dimethylformamide	5 ~ 10
Camphor	0.3 ~ 1.0
Turpentine oil	0.01 ~ 0.1
Lauryl alcohol	0.1 ~ 0.5
Total	100

with dimethylformamide (amine) in the amount of 5 to 10 percent by weight and alcohol ranging from 50.1 to 75.5 percent by weight (paragraph 0043-0045).

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With respect to claim 6 **JINMAN** discloses a fuel composition comprising of a fire power enhancer such as butyl alcohol (butanol), acetone, and the like (paragraph 0015 and 0024).

5. Claim 7 is rejected under 35 U.S.C. 102(a) as being clearly anticipated by **MATSUYAMA (US 2003/0211434)**.

With respect to claim 7 **MATSUYAMA** discloses an apparatus for producing a sustained flame comprising a first reservoir containing a first flame-fueling liquid (102), a second reservoir for containing a second flame-fueling liquid (103), a wick disposed in both reservoirs (112 and 113), air channels, safety caps (104-105) for pressure control, an exhaust to allow gases to escape (504 a-c).

FIG. 1

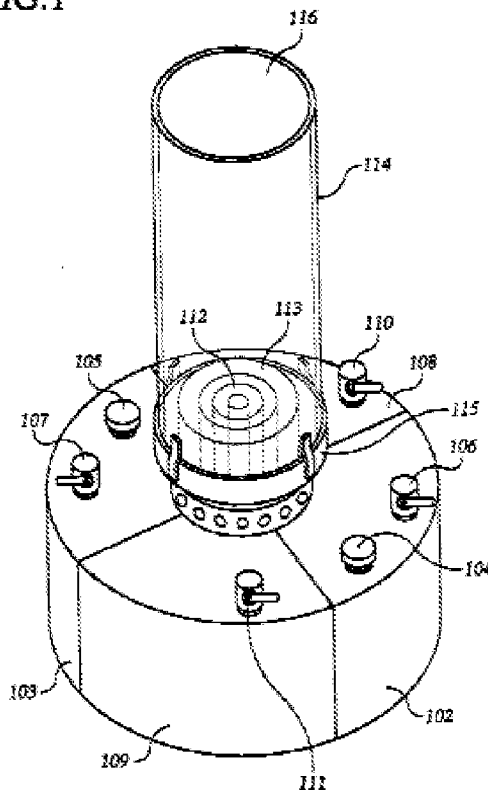
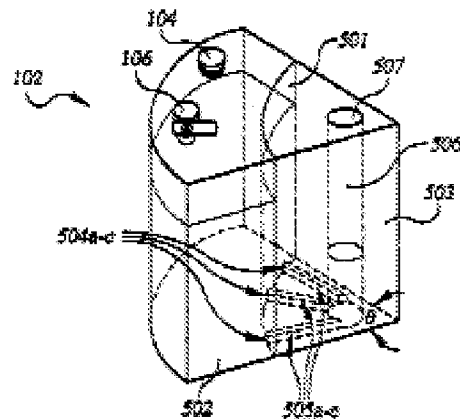


FIG. 5



The fuel reservoirs contain liquid fuel with caps that allow the reservoirs to be filled and safety caps are also included to prevent buildup of excess vapor pressure (paragraph 0015). Each air valve is in fluid communication with an air container so that when air valve is open atmospheric air flows into air container (paragraph 0017). First air channels are at the first end of the flame-bearing end of wick and a second end located in air container and same for second air channel (paragraph 0022-23). This allows for flames with different characteristics to be produced by different fuels. The embodiment shows air channels reducing airflow using air valves (paragraph 0025). When valve is closed, the inner flame merges with the outer flame. A second air channel may be provided, with one end located in the center of the inner flame and the other in a second air container with its own valve. Two reservoirs are provided so that the two wicks may burn different fuels (paragraph 0041-421).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over JINMAN (EP 1,323,812).

With respect to claim 3-4 **JINMAN** discloses the fuel composition comprising of various alcohols such as methanol, ethanol, propanol, and butanol which are interchangeable. The amount of alcohol needed for the fuel composition ranges from 55.2 to 92.0 percent by weight (paragraph 0015 and 0024-0026).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LATOSHA HINES whose telephone number is (571)270-5551. The examiner can normally be reached on Monday thru Thursday and alternate Fridays from 8 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Barbara Gilliam can be reached on 571-272-1330. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Barbara L. Gilliam/
Supervisory Patent Examiner, Art Unit 4128